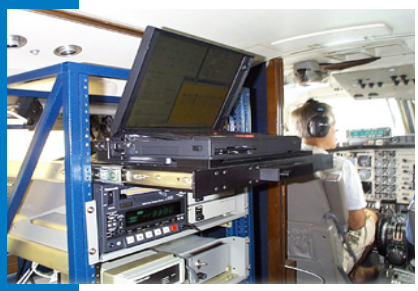
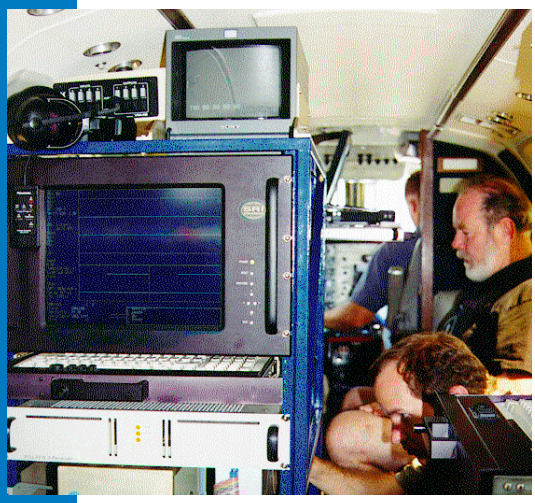
US Army Corps
of Engineers
Omaha District

Technology of the Future Helps Corps Clean Ranges of the Past





The partnership of the U.S. Army Corps of Engineers and the Colorado Department of Public Health & Environment (CDPHE) is making great strides in the young science that is ordnance explosive (OE) investigations and clean-up of former military bombing ranges, such as the Former Lowry Bombing and Gunnery Range (FLBGR) located outside Aurora, Colorado.

The former range opened in 1937 and was used during World War II for bombing practice with both practice and high-explosive bombs at fixed and flexible gunnery targets. Use of the range by the military ended in 1956. In 1969 the lands were transferred to other federal, state and private parties.

There have been several clearance actions at the site, which encompasses 100-square miles of land, since the transfer, but the expertise, standards and technology of the time had limited those efforts. The clean-up being accomplished today by the Corps/ CDPHE partnership is the most comprehensive at the site and incorporates the latest OE investigative and removal technologies.

Two such technologies are airborne remote sensing techniques referred to as Synthetic Aperture Radar (SAR) and Hyper Spectral Imaging (HSI). These technologies are being utilized at the site to find "unknown areas of concerns" (i.e. impact areas) for further investigation and/or removal actions. The technologies compliment known site information and provide an efficient means for assuring 100% coverage/characterization of the site.

Full characterization of such large sites have become a high priority for project stakeholders and regulatory agencies. SAR/HSI is a major first step in being able to effectively accomplish this. The FLBGR is the first large test site that SAR/HSI has been utilized on for OE detection.

It is the hope that the SAR/HSI approach will enhance the ongoing investigations and removal actions and help return the land to the safest practical level reasonably expected to allow future development on the former range.

SAR/HSI data has been collected for the entire FLGBR site and the team is currently in the data processing and field verification stages. The partnership expects this technology to become the cornerstone in providing quicker, more complete, cost effective characterization of large OE sites worldwide.

Project Team:
U.S. Army Corps of Engineers, Omaha
Colorado Department of Public Health & Environment
Former Lowry Bombing and Gunnery Range Restoration Advisory Board

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